

Claims

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1. Laboratory test of a body fluid or tissue sample,
characterized in
that cis-hydroxyproline and derivatives thereof are detected by means of quantitative analysis.

2. Laboratory test of a body fluid or tissue sample, as claimed in claim 1,
characterized in
that cis-4-hydroxyproline is detected by means of quantitative analysis.

3. Laboratory test of a body fluid or tissue sample, as claimed in claim 1,
characterized in
that the quantitatively analytic detection of cis-hydroxyproline and its derivatives is carried out by means of HPLC, column chromatography, gas chromatography, mass spectroscopy, ion exchange chromatography, immunoassay, radio immunoassay, enzyme immunoassay, fluorescence immunoassay or other corresponding antibody methods. (12, 2nd)

4. Process for determining cis-hydroxyproline and its derivatives for the purpose of a laboratory test of a body fluid or tissue sample, as claimed in claim 1,
characterized in
that the body fluid or tissue sample to be analyzed is prepared to eliminate disturbing substances; and that the cis-hydroxyproline and its derivative content is determined quantitatively in this sample. (12, 2nd) How it is prepared.
How? (12, 2nd)

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5. Process, as claimed in claim 4,
characterized in
that the determination of cis-hydroxyproline and its derivatives is performed by means of HPLC, gas chromatography, column chromatography, mass spectroscopy, ion exchange chromatography, RIA, ELISA or fluorescence immunoassay.

6. Process, as claimed in claim 4,
characterized in
that the cis-hydroxyproline and its derivative content is determined by means of comparison with an external and / or internal standard.

7. Process, as claimed in claim 4, wherein the cis-4-hydroxyproline content in the body fluid and tissue sample is determined by means of HPLC, comprising the following steps:

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- a) An internal standard is added to the body fluid and / or the tissue sample.
- b) The mixture, obtained according to step a), is hydrolyzed.
- c) At least one alkali hydroxide and at least one alkali carbonate are added to the product, obtained according to step b).
- d) A reagent eliminating the disturbing substance and a derivatization reagent are added to the product, obtained from step c); and
- e) the cis-4-hydroxyproline and its derivative content is determined in the product obtained in step d).

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8. Process, as claimed in claim 7,
characterized in
that before step b) an acid is added.

9. Process, as claimed in claim 8,
characterized in
that hydrolysis takes place in the presence of hydrochloric acid at a temperature ranging from 80 degrees C to 120 degrees C.

10. Process, as claimed in claim 7,
characterized in
that the alkali metal compounds added in step c) are hydroxides or carbonates of sodium or potassium.

11. Process, as claimed in claim 7,
characterized in
that the pH value in step c) is adjusted to a pH ranging from 8.5 to 9 with the addition of HCl.

12. Process, as claimed in claim 7,
characterized in
that in step d) ortho-phthaldialdehyde (OPA) and as the derivatization reagent an azo dye are added.

13. Process, as claimed in claim 7,
characterized in
that prior to the quantitative analysis of cis-4-hydroxyproline and its derivatives in step e) the temperature is lowered.
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14. Process, as claimed in claim 4,
characterized in

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that the body fluid sample is a urine sample or a blood sample.

15. Process, as claimed in claim 7,
characterized in
that cis-3-hydroxyproline is used as the internal standard (IS).

16. Analysis kit to carry out the process, as claimed in claim 7, comprising HCl (10 M), NaOH (16 M), Na₂CO₃ (4 M), ortho-phthalaldehyde, aqueous phosphate buffer and dabsyl chloride.

17. Analysis kit, as claimed in claim 16,
characterized in
that the concentration of ortho-phthalaldehyde ranges from 45 to 55 g/l.

18. Analysis kit, as claimed in claim 16,
characterized in
that the concentration of dabsyl chloride ranges from 220 to 270 mg/l.

19. Analysis kit, as claimed in claim 16,
characterized in
that it includes at least one RP 8 separating column.

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